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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/754,568	01/12/2004	David Ge	334.0012	8227

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EXAMINER

VO, NGUYEN THANH

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/754,568	GE, DAVID	
	Examiner	Art Unit	
	Nguyen T. Vo	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-12 is/are allowed.
- 6) ☒ Claim(s) 1-9 and 13-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-5, 16, 18-19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,681,100. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-19 of the above copending application disclose all the limitations in claims 1-5, 16, 18-19 of the present application.

3. Claims 6-7, 17 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,681,100 in view of Gillespie (4,399,416, cited by examiner).

As to claims 6, 17, claims 1-19 of the above U.S. Patent fails to disclose a decoder and a plurality of parallel comparators for providing a plurality of control signals

as claimed. Gillespie discloses a decoder (see column 3 lines 8-14), and a plurality of parallel comparators 55 (see figure 3) for providing a plurality of control signals C1-C5 (see column 2 line 67 to column 54). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Gillespie to claims 1-19 of the above U.S. Patent, in order to extend dynamic range of the amplifier (as suggested by Gillespie at column 1 lines 12-30).

As to claim 7, Gillespie discloses the claimed limitations because there are five output power levels C1-C5 while only four comparators 55 in figure 3 of Gillespie.

4. Claims 8-9, 13-14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,681,100 in view of Tsurumaki (5,345,591, cited by examiner).

As to claims 8, 13-14, claims 1-19 of the above U.S. Patent fails to disclose a power injector including an input, and output, an actuator and a voltage regulator as claimed. Tsurumaki discloses a power injector including an input, and output, an actuator and a voltage regulator (see figure 4, numerals 28-29; see also voltage regulator 32 in figure 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Tsurumaki to claims 1-19 of the above U.S. Patent, in order to allow the user to manually control the operation of the outdoor unit using the knob 29 (as suggested by Tsurumaki at column 7 line 56 to column 8 line 2).

As to claim 9, Tsurumaki discloses the claimed limitations (see figure 4 of Tsurumaki).

5. Claim 15 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,681,100 in view of Tsurumaki (5,345,591, cited by examiner) as applied to claim 13 above and further in view of Yuzawa (5,386,587, cited by examiner).

As to claim 15, claims 1-19 of U.S. Patent No. 6,681,100 fails to disclose a capacitor and an inductor as claimed. Such a capacitor and an inductor are known in the art as taught by Yuzawa (see the inductor L2 in figure 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Yuzawa to claims 1-19 of U.S. Patent No. 6,681,100, in order to block high frequency components (as suggested by Yuzawa at column 4 lines 58-62).

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Barakat (6,363,241, cited by examiner).

As to claim 1, Barakat discloses in figure 2 an amplifier for a system having a signal source for a transmission signal, an antenna 44, and a cable coupled to the signal source and the antenna (see column 2 lines 21-28), the amplifier comprising a sensor 54 having a first input for coupling to the cable and an output, a transmission amplifier module (see numerals 154, 70, 72; see also column 7 lines 59-65) having an

input for coupling to the cable and an output for coupling to the antenna, said transmission amplifier module including an attenuator 154 (see column 6 lines 29-34) having a first input for receiving the transmission signal from the cable, a second input connected to the output of said sensor, and an output for communicating with the antenna; and wherein said attenuator varies the gain of the transmission signal received at the first input responsive to a signal received at the second input from the sensor based on voltage of the signal received at the amplifier to produce a desired output power level for the transmission signal (see column 6 line 18 to column 7 line 65).

As to claims 2-3, Barakat discloses a first amplifier 70 and a second amplifier 74 as claimed (see also column 7 lines 59-65).

As to claim 5, see Barakat, column 7 lines 20-38.

8. Claims 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsurumaki (5,345,591, cited by examiner).

As to claim 13, Tsurumaki discloses a power injector (see figure 4, numerals 28-29) for use in a system having a signal source, an amplifier LNA (see figure 5), and a cable CB11 (see figure 5), the power injector comprising an input, and output, an actuator 29 and a voltage regulator (see figure 4, numerals 28-29; see also voltage regulator 32 in figure 8).

As to claim 14, Tsurumaki discloses a knob 29 (see figure 4).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 4, 16, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barakat in view of Young (US 2003/0104780, cited by examiner).

As to claim 4, Barakat discloses a receiving amplifier module (see numerals 83 and 88). Barakat, however, fails to disclose a first switch, a second switch and a switch controller as claimed. Young discloses in figure 3 a receiving amplifier module (see numerals 28, 30), transmission amplifier module (see numerals 34), a first switch 24, a second switch 35 and a switch controller 23. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Young to Barakat, in order to provide isolation between transmitting mode and receiving mode (as suggested by Young at paragraph [0021]).

As to claim 16, the rejection to claim 4 as set forth above is herein incorporated.

As to claim 18, see Barakat, column 6 line 9 to column 7 line 50.

As to claim 19, see Barakat, column 6 lines 22-28.

11. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barakat in view of Gillespie (4,399,416, cited by examiner).

As to claim 6, Barakat fails to disclose a decoder and a plurality of parallel comparators for providing a plurality of control signals as claimed. Gillespie discloses a decoder (see column 3 lines 8-14), and a plurality of parallel comparators 55 (see figure 3) for providing a plurality of control signals C1-C5 (see column 2 line 67 to column 54). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to provide the above teaching of Gillespie to Barakat, in order to extend dynamic range of the amplifier (as suggested by Gillespie at column 1 lines 12-30).

As to claim 7, the combination of Barakat and Gillespie discloses the claimed limitations because there are five output power levels C1-C5 while only four comparators 55 in figure 3 of Gillespie.

12. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barakat in view of Tsurumaki (5,345,591 cited by examiner).

As to claim 8, Barakat fails to disclose a power injector including an input, and output, an actuator and a voltage regulator as claimed. Tsurumaki discloses a power injector including an input, and output, an actuator and a voltage regulator (see figure 4, numerals 28-29; see also voltage regulator 32 in figure 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Tsurumaki to Barakat, in order to allow the user to manually control the operation of the outdoor unit using the knob 29 (as suggested by Tsurumaki at column 7 line 56 to column 8 line 2).

As to claim 9, the combination of Barakat and Tsurumaki discloses the claimed limitations (see figure 4 of Tsurumaki).

13. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsurumaki (5,345,591 cited by examiner) in view of Yuzawa (5,386,587, cited by examiner).

As to claim 15, Tsurumaki discloses a capacitor 24a as claimed (see figure 4), but fails to disclose an inductor as claimed. Such an inductor is known in the art as



taught by Yuzawa (see the inductor L2 in figure 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Yuzawa to Tsurumaki, in order to block high frequency components (as suggested by Yuzawa at column 4 lines 58-62).

14. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barakat in view of Young as applied to claim 16 above and further in view of Gillespie (4,399,416, cited by examiner).

As to claim 17, the combination of Barakat and Young fails to disclose a decoder and a plurality of parallel comparators for providing a plurality of control signals as claimed. Gillespie discloses a decoder (see column 3 lines 8-14), and a plurality of parallel comparators 55 (see figure 3) for providing a plurality of control signals C1-C5 (see column 2 line 67 to column 54). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Gillespie to the above combination of Barakat and Young, in order to extend dynamic range of the amplifier (as suggested by Gillespie at column 1 lines 12-30).

***Allowable Subject Matter***

15. Claims 10-12 are allowed.

As to independent claim 10, the applied prior art fail to disclose or render obvious receiving a desired output level for the transmission, transmitting a signal having a RF component including the signal to be transmitted and a DC component representative of the transmission output level, receiving the signal, amplifying the RF component of the signal, detecting the size of the DC component and providing an attenuation control

signal, attenuating the RF component of the signal to a level such that when the RF signal is transmitted it will be transmitted at the desired output level, and transmitting the RF component of the signal, as specified in the claim.

***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tung (US 2003/0185168); Ammar (7,046,959); Jeon (5,559,809) disclose controlling transmission power of outdoor unit.

Burns (6,512,416) discloses using a decoder and a plurality of comparators to provide a plurality of gain control signals.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen T. Vo whose telephone number is (571) 272-7901. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nguyen Vo



7-31-2006

**NGUYENT.VO  
PRIMARY EXAMINER**